

But relative to whites, minorities continue to suffer illness and death disproportionately and this disproportionate suffering has not been appreciably altered in the recent past. Unintended pregnancies (as measured by abortions and teenage pregnancies, especially repeat teenage pregnancies) continue to be a major problem in the minority community, with racial gaps recently stabilizing or worsening rather than improving. While reductions have occurred in the minority infant death rate, it is **still** almost twice the white rate. Similarly, while minorities have experienced greater declines in overall mortality than whites in the recent past, they still have death rates at least 40% higher. The major contributors to the disparity are homicides, cancer (particularly prostate, stomach, cervical, and lung cancers), all other accidents, cerebrovascular disease, nephritis/nephrosis, and chronic liver disease/cirrhosis. Using a somewhat conservative definition* of "excess" mortality (i.e., the ratio of the two highest race-sex-specific rates), rates for these causes were at least 50% higher for either minority males or minority females than the next highest rate. Of these two race-sex groups, minority males are clearly the group **most** at risk of excess death and, consequently, **most** in need of interventions to lower this risk.

Although not included in the above listing because of the conservative definition, hypertension and diabetes are significant contributors to the health problems of minorities, although in a different way. Mortality ratios by sex show that minorities are at least twice as likely as whites to die from these causes. However, mortality statistics based on underlying cause of death underestimate the magnitude of these problems because their contribution to other health problems such as heart disease, stroke, and diseases of the kidney and eyes are not quantified. For example, in 1985 hypertension was the underlying cause on 231 death certificates but was mentioned on 4,126 (8% of total certificates). Of certificates with hypertension mentioned on them, heart disease was also mentioned on 79%, atherosclerosis on 31%, and cerebrovascular disease on 30%. Diabetes was the underlying cause on 869 certificates but was mentioned on 4,130 (8% of total). Of these, heart disease was mentioned on 75%, atherosclerosis on 40%, and cerebrovascular disease on 23%. Both diabetes and hypertension were mentioned together on 947 certificates (about 1.8% of total certificates). Consequently, hypertension and diabetes are not themselves major killers based on underlying causes of death but contribute to the severity of other problems which take an excessive toll on minorities.

Given the disproportionate illness and death of minorities, can we account for such disparities? Numerous factors are presumed to influence health, and among these, sociodemographics are believed to be especially significant (1). Minorities tend to be less well educated and to have lower incomes than whites, thereby limiting access to and knowledge of health services and healthy practices. The income problem is exacerbated by the fact that minority families are generally larger than white families and are more likely to be female-headed. Combined with the aforementioned problems, minorities are more likely to be concentrated in urban areas and thus are exposed to a relatively greater number of environmental hazards including pollution, traffic hazards, substandard and overcrowded housing, and crime. Because of the lower levels of education, minorities tend to be relegated to positions that potentially present greater levels of exposure to environmental risks such as physical and mental stressors and toxic substances. Where these socioeconomic factors affect health status, differentials in health can be expected.

The differentials in socioeconomic status raise another issue in accounting for racial disparities in health—that is, the appropriateness of "race" as a comparison variable. The term "race" connotes genetic differences, but in actuality is a more powerful force in determining health not for biological but for social reasons (8). In analyzing race differentials, it would have been preferable to compare affluent whites with affluent minorities and the white poor with the minority poor to better delineate whether the health differentials are due to economic differences. Differential income levels within and among racial groups act as confounding variables and distort any overall racial comparisons. This problem was clearly demonstrated when, using education as a proxy for income, comparisons were made of adequacy of care, low birthweight, and neonatal and postneonatal mortality by race and education. With these indicators, for example, minority health tended to improve significantly as socioeconomic status increased, but the gaps between the minority and white rates widened, illustrating the confounding of income, health status, and race. Unfortunately, in most cases, North Carolina data collection systems do not exist that enable the analysis of data by income.

Yet, even among the limited comparisons of race, education and infant health, the comparability of groups is still an issue. For example, among births under 2500 grams, minorities have had a lower neonatal death rate than whites, regardless of education. One suggested explanation

*This was considered a conservative approach because with some causes, minorities had the two highest race-sex-specific rates. For these causes, while there were significant differences if we compared the minority and white rates by sex, there was little difference when comparing the male and female rates by race.